Space Support Element Toolset (SSET)

SSET Experiment Objective

Employ one SSET with an organic Space Support Element (SSE), comprised of Army Space Operations Officers (Functional Area 40), at an Army Forces headquarters to fully exploit all available space and space-related capabilities to division level warfighting in the Army Transformation Experiment 2002 (ATEx02) experiment and the Millennium Challenge 2002 (MC02) exercise.

Experiment Description and Functions

The SSET is a self-contained system that provides Space Operations Officers with hardware, software, communications, and reachback capabilities to accomplish assigned space and space-related tasks. The SSET is integrated into a military S-787 shelter, which is mounted on a M1113 High Mobility Multipurpose Wheeled Vehicle (HMMWV).

The SSET is a tactically mobile space operations node, into which crucial space-related collateral data from multiple space related sources are received, manipulated, processed, and the resulting products (in user useable format) are disseminated to tactical user(s) in support of combat operations.

Benefit to the Warfighter

The SSET increases situational awareness by exploiting space capabilities in support of staff operations through the military decision-making process (MDMP). This increased situational awareness allows commanders an increased ability to see first, understand first, act first, and finish decisively.

Technical Description

The SSET is a one of a kind experimental prototype comprised of Commercial-Off-The-Shelf (COTS) and Government-Off-The-Shelf (GOTS) hardware, software, communications and encryption, which are the tools, used to develop, process, manipulate and disseminate tactically relevant space-related information and products to in-theater users. Information is conveyed to, and disseminated over the SIPRNET using the SSET's Space Applications Technology Utility Research Network (SATURN) satellite terminal and/or the host unit classified Tactical Local Area Network (TacLAN), Single Channel Ground and Airborne Radio System (SINCGARS), or through other hand carried media.

Applications

- Enhancements to Situational Awareness (SA) and tactical Common Operational Picture (COP)
- Weather, Terrain and Environmental Monitoring (WTEM)
- Intelligence, Surveillance, Reconnaissance (ISR)
- Support to Battle Damage Assessment (BDA)
- Support to Force Protection (Friendly space capabilities)
- Support to Information Operations (IO) ("Space Dominance")
- Support to Friendly Force Tracking (FFT)
- Support to Intelligence Preparation of the Battlefield (IPB)
- Support to Targeting and Precision Engagement
- Support to Space Control (denial of enemy space capabilities)

System Technical Features Includes:

- Tactically mobile HMMWV
- Self contained S-787 shelter with on board generator, heating, AC, and expandable tent
- Inexpensive COTS/GOTS hardware/software
- User friendly working environment
- Beyond line of sight communications
- Robust "reachback" communications capabilities
- Collaborative space related tools/capabilities

Experiments/Demonstrations

Summer/fall of FY 02 concurrent ATEx02 and MC02 venues

For more information, please contact:

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